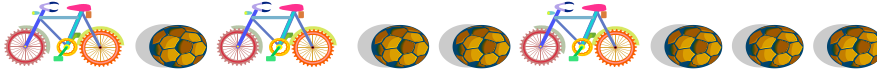
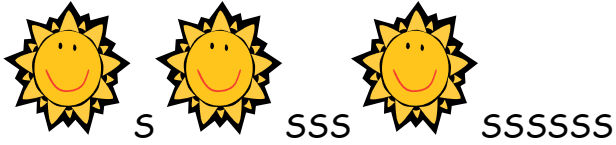


Exit Card

1. Block the levels. Label the levels. Count the objects.



2. Extend the growing pattern.



3. Create your own growing pattern with four levels.

Name: _____

Date: _____

Name: _____

Date: _____

Use what you know about growing patterns to label the levels and core of the patterns. Also number the levels and objects in each level.



3) Draw what the next level of this growing pattern will look like in the box below.



Name: _____

Date: _____

Use what you know about growing patterns to label the levels and core of the patterns. Also number the levels and objects in each level.



3) Draw what the next level of this growing pattern will look like in the box below.



The Giving Quilt

Student Resource 7a

Congratulations! You have been chosen to create a quilt design that Patricia Polocco will use in her new book "The Giving Quilt". Mrs. Polocco loves patterns and wants her quilt design to have a growing pattern on it. Use your knowledge of growing patterns to create a quilt that Patricia Polocco can use in her new book. Draw your pattern on the quilt below. Be sure to "stitch" your quilt by drawing boxes around the levels in your pattern.

Copy the first 3 levels of your pattern below. Draw boxes around each level and label your pattern with numbers.

--

Name: _____

Date: _____

Now you need to write a letter to Patricia Polocco telling her about your quilt. Be sure to include:

- ✓ How you used your knowledge of growing patterns to create your design.
- ✓ How many levels are in your pattern.
- ✓ What is the core of your pattern.
- ✓ What number pattern your design is showing.

Dear Mrs. Polocco,

Sincerely,

Now you need to write a letter to Patricia Polocco telling her about your quilt. Be sure to include:

- ✓ How you used your knowledge of growing patterns to create your design.
- ✓ How many levels are in your pattern.
- ✓ What is the core of your pattern.
- ✓ What number pattern your design is showing.

Dear Mrs. Polocco, *(responses will vary)* *(3 points possible)*

I made a quilt for your new story. The core of my pattern has _____ symbols in each level. The symbols are _____
_____. In my quilt I have _____ levels.
My quilt shows a number pattern. The pattern is counting by _____.
I know that my growing pattern I have to _____
_____.
Thank you for _____.

Sincerely,

Exit Card

Extend the pattern one more level.



The next level of the pattern will look like this:



Name: _____

Date: _____

Exit Card

Extend the pattern one more level.



The next level of the pattern will look like this:



Name: _____

Date: _____

Discussion Questions For Groups

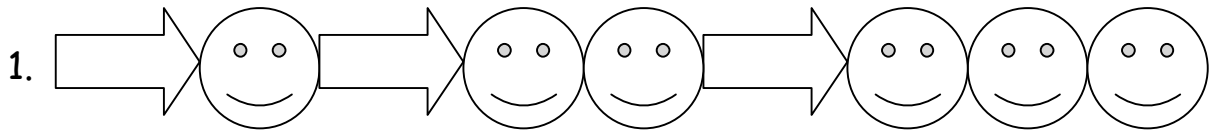
1. What is changing in your pattern?
 2. What is staying the same in your pattern?
 3. How could you extend your pattern to the next level?
 4. What do you notice about the number of objects on each level within your pattern?
-

Discussion Questions For Groups

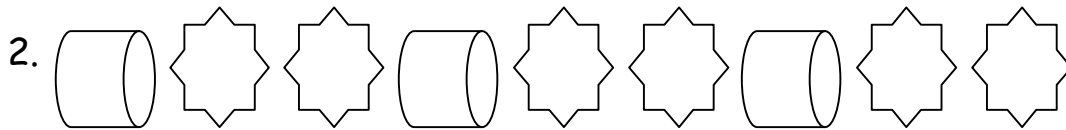
1. What is changing in your pattern?
2. What is staying the same in your pattern?
3. How could you extend your pattern to the next level?
4. What do you notice about the number of objects on each level within your pattern?

Mixed-Up Patterns

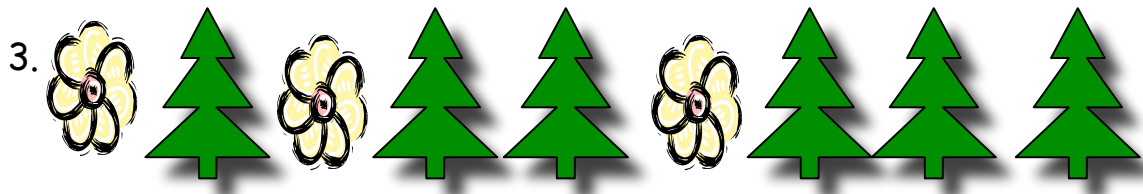
Directions: Using what you know about repeating and growing patterns, identify which pattern is **growing** or **repeating**. Write on the line provided.



growing pattern



repeating pattern



growing pattern

Name: _____

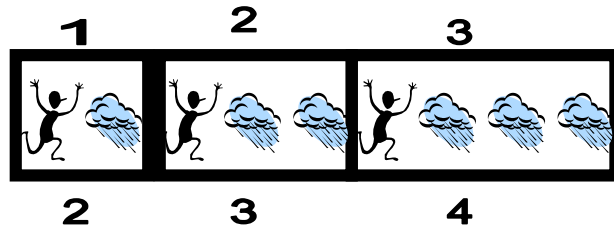
Date: _____

Growing Patterns

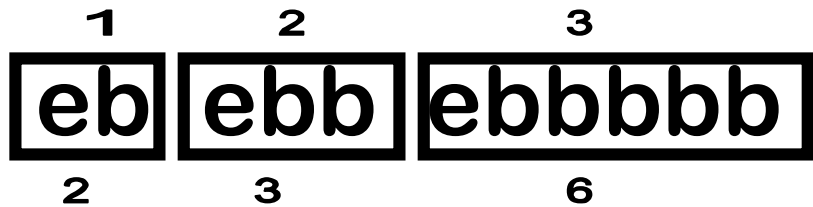
Answer Key

Teacher Resource 4

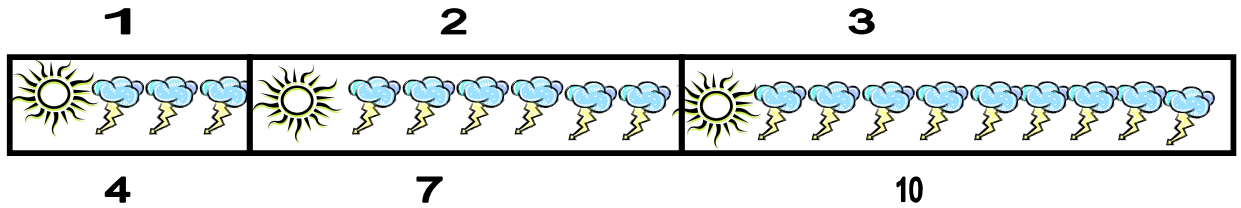
Student Resources 4a #1, 4b # 3,
4c #3, 4d #2



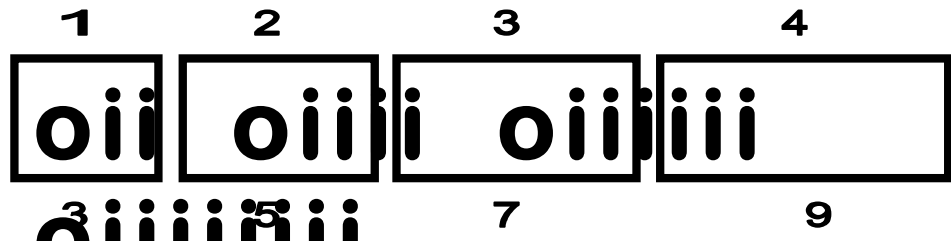
Student Resources 4a #2, 4d # 1,
4e #2



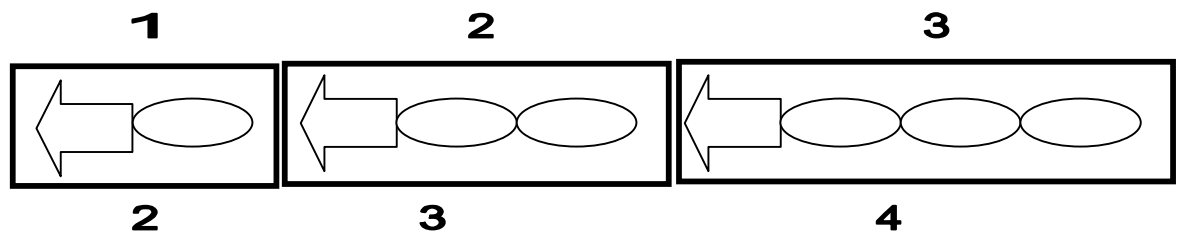
Student
Resource
4a #3, 4b #
1, 4e #1



Student Resource 4b #2,
4c # 1,

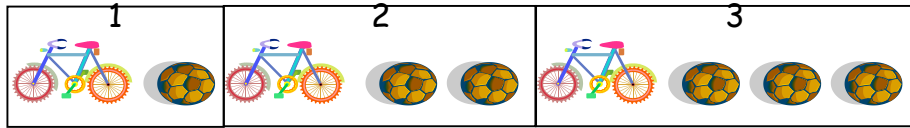


Student
Resources 4d
3, 4e #3



Exit Card

1. Block the levels. Label the levels. Count the objects.

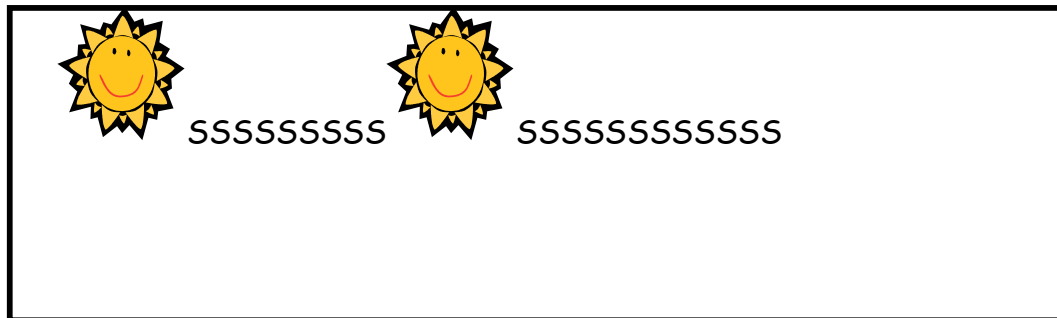
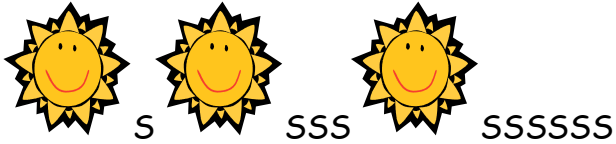


2

3

4

2. Extend the growing pattern.



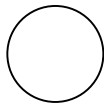
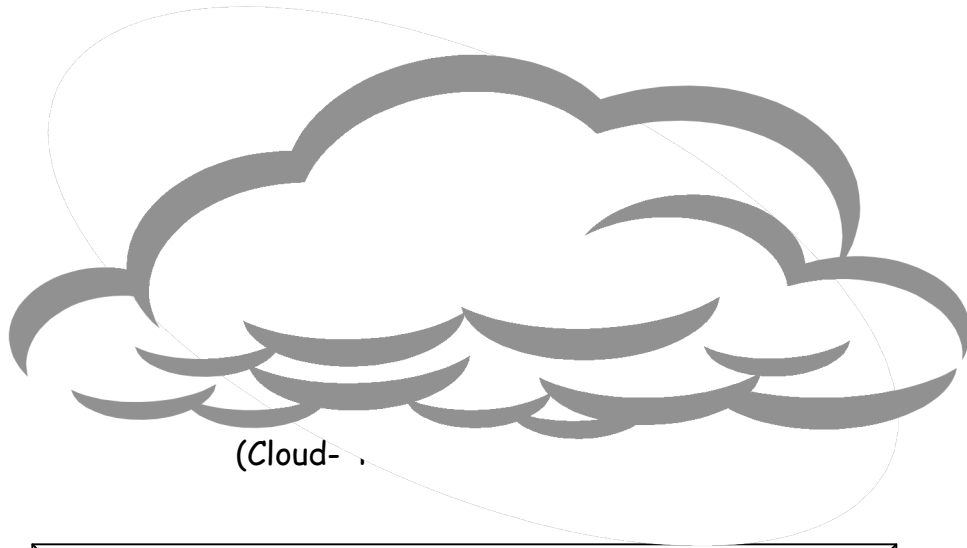
3. Create your own growing pattern with four levels.

(Answers will vary.)

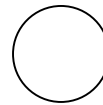
Name: _____

Date: _____

The Pattern Train



(Box Lid- To be used to box in levels)

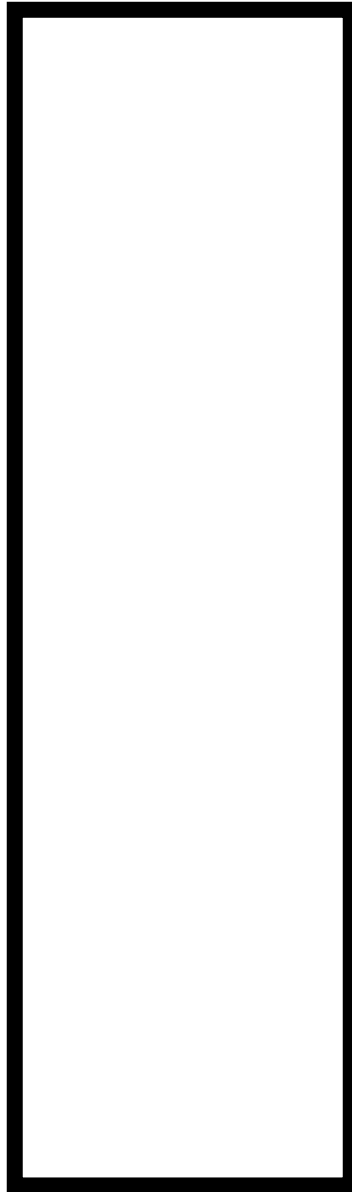


(Train track- To be used to record the number of objects)

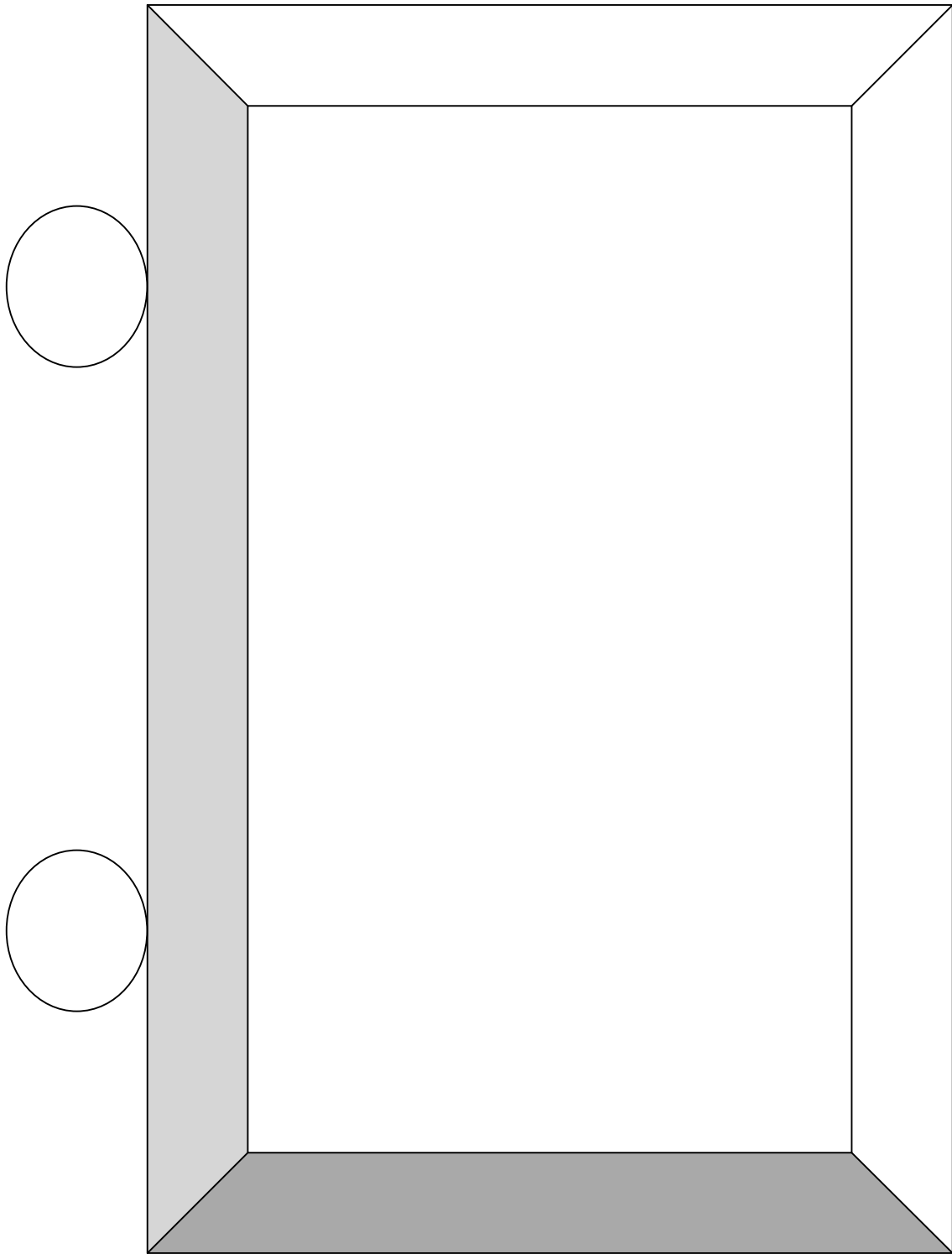
Cloud



Train Track



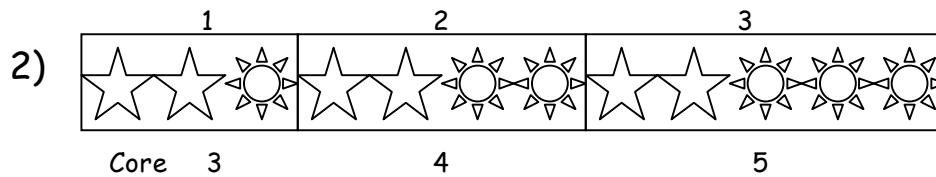
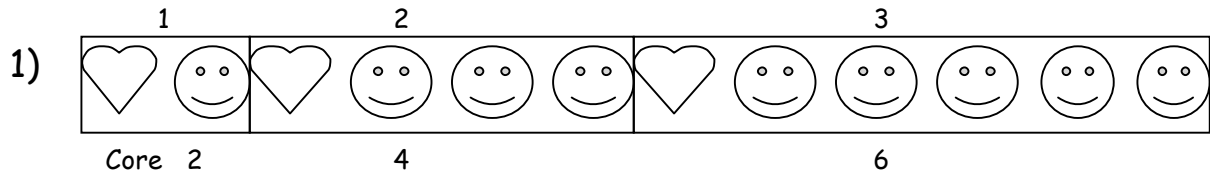
Train Car



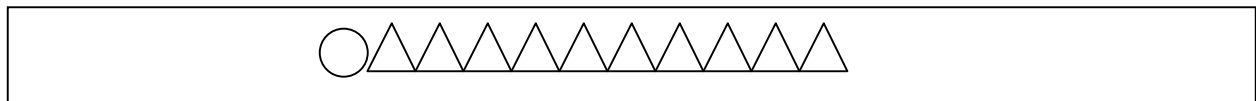
Name: _____

Date: _____

Use what you know about growing patterns to label the levels and core of the patterns. Also number the levels and objects in each level.




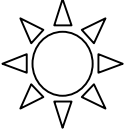

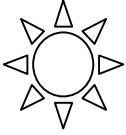
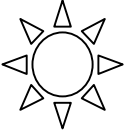
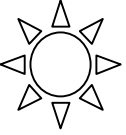
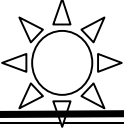

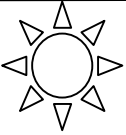
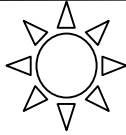
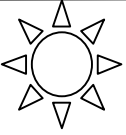
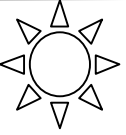
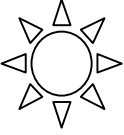
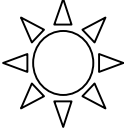
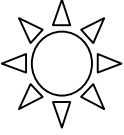

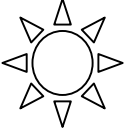
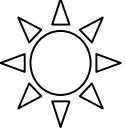
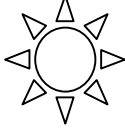
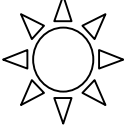
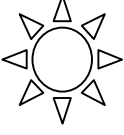
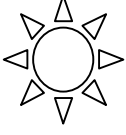
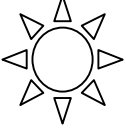
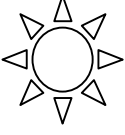
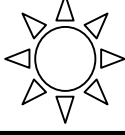
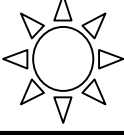
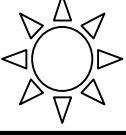

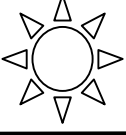
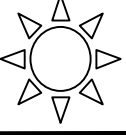
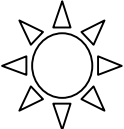
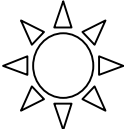
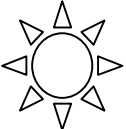
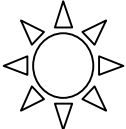
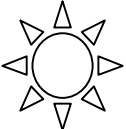
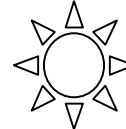
3) Draw what the next level of this growing pattern will look like in the box below.



The Giving Quilt

Teacher Resource 8a




Congratulations! You have been chosen to create a quilt design that Patricia Polocco will use in her new book "The Giving Quilt". Mrs. Polocco loves patterns and wants her quilt design to have a growing pattern on it. Use your knowledge of growing patterns to create a quilt that Patricia Polocco can use in her new book. Draw your pattern on the quilt below. Be sure to "stitch" your quilt by drawing boxes around the levels in your pattern.

(3 points possible)

Copy the first 3 levels of your pattern below. Draw boxes around each level and label your pattern with numbers.

(3 points possible)

1	2	3
		
2	5	8

Now you need to write a letter to Patricia Polocco telling her about your quilt. Be sure to include:

- ✓ How you used your knowledge of growing patterns to create your design.
- ✓ How many levels are in your pattern.
- ✓ What is the core of your pattern.
- ✓ What number pattern your design is showing.

Dear Mrs. Polocco, *(responses will vary)* *(3 points possible)*

I made a quilt for your new story. The core of my pattern has 2 symbols in each level. The symbols are a smiley face and sun. In my quilt I have 5 levels. My quilt shows a number pattern. The pattern is counting by 3's. I know that in my growing pattern I have to add 3 suns to each new level. Thank you for the opportunity to make your quilt.

Sincerely,
